

MGP Pro and WindoWall® Pro Series • Setup Guide

The MGP Pro and WindoWall Pro Series are multi-window video signal processors that can display multiple video sources on a single screen in picture-in-picture or picture-by-picture format. The processors can switch among inputs and presets. The available models are listed below. The MGP 464 Pro and WindoWall Pro models display up to four windows while the MGP 462 Pro models display one or two.

The WindoWall Pro Series products are designed for videowall systems and are available in sets of two or three processors. These models have no front panel controls and are controllable only via software.

The following input configurations are available:

- **Standard MGP 464 Pro, MGP 462 Pro, and WindoWall Pro** — Four sets of BNC inputs that accept RGB, component video, S-video, and composite video signals
- **MGP 464 Pro DI, MGP 462 Pro DI, and WindoWall Pro DI** — Four sets of BNC inputs and four HDMI inputs
- **MGP 464 Pro 3G-SDI and MGP 462 Pro 3G-SDI** — Four sets of BNC inputs, two 3G/HD-SDI inputs, and two HDMI inputs

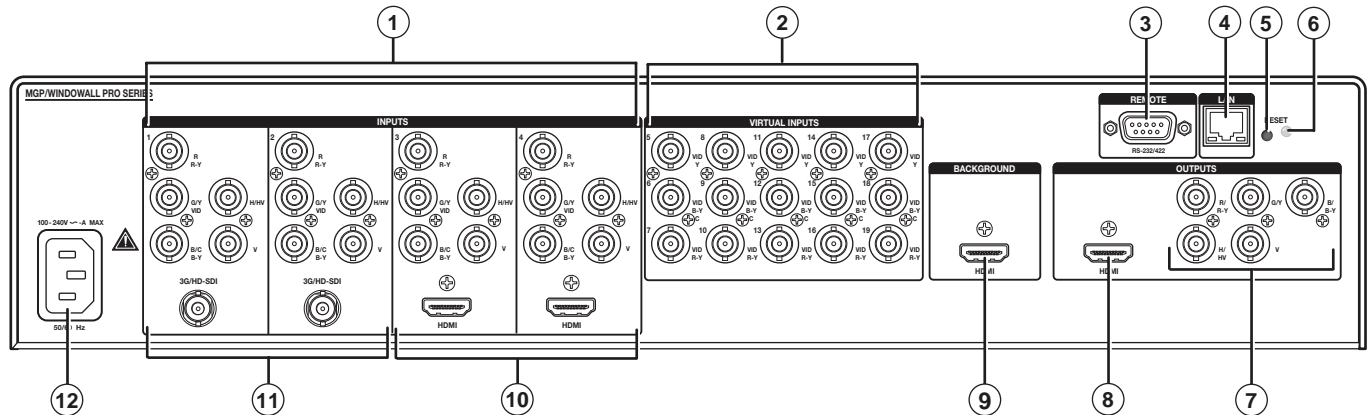
All MGP Pro models have 15 virtual inputs on BNC connectors.

This guide provides procedures for installing all MGP 464 Pro and MGP 462 Pro models, and for configuring all models except the WindoWall Pro series. To configure the WindoWall Pro models (done only using software), see the WindoWall Console help file or the *WindoWall Console Quick Reference* card.

NOTE: For full installation, configuration, and operation details, see the *MGP Pro Series User Guide* or the *WindoWall Pro Series User Guide*, available at www.extron.com.

Rear Panel Features and Connections

NOTE: The illustration below shows an MGP 464 Pro 3G-SDI. The rear panels of the other MGP Pro and WindoWall Pro models are the same except for the number and types of input connectors.



- | | | |
|--|---|-------------------------------|
| ① BNC inputs 1 through 4 | ② Virtual inputs 5 through 19 | ③ Remote RS-232/422 connector |
| ④ LAN connector | ⑤ Reset button | ⑥ Reset LED |
| ⑦ BNC output connectors | ⑧ HDMI output connector | ⑨ HDMI live background input |
| ⑩ HDMI inputs (DI and SDI models only) | ⑪ 3G/HD-SDI inputs (3G-SDI models only) | ⑫ AC power connector |

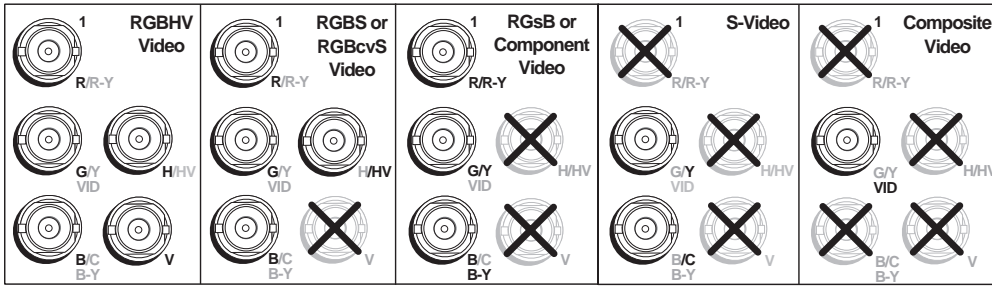
Installation Steps

1. Install the four rubber feet on the bottom of the MGP Pro, or mount the unit using the supplied rack mounting brackets (see the instructions provided with the mounting kit).
2. Turn off power to the input and output devices, and remove the power cords from them.

MGP Pro and WindoWall® Pro Series • Setup Guide (Continued)

3. Connect input sources to the BNC, HDMI, and 3G/HD-SDI input connectors. The inputs can accept the following signals:

- **RGB, HD/SD component, S-video, and composite video inputs 1, 2, 3, and 4** — RGB, component video, S-video, or composite video (fully configurable)



- **HDMI inputs 1, 2, 3, and 4** (DI and SDI models only) — Any of these inputs can be used instead of or in combination with analog inputs 1 through 4. However, the MGP Pro cannot process input from two different source devices connected to HDMI or 3G-SDI and BNC connectors with the same input number (for example, input 1) at the same time.
- **3G-SDI inputs 1 and 2** (SDI models only) — Either of these inputs can be used instead of or in combination with analog input 1 or 2.

NOTE: Standard definition SDI is not supported on these 3G/HD-SDI inputs.

- **Live Background input** — HDMI for live background video only (available on all models). The two or four MGP Pro windows are displayed in front of this background image. When a live background is used, the MGP Pro output is locked to the input rate of the live background. This input is not scaled.

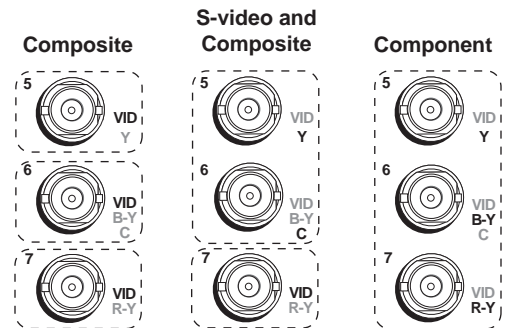
NOTE: This input connector can be used only to receive the background image. The input is not scaled or processed. To process HDMI input signals, you must use a DI or SDI model.

- **Virtual inputs** (not supported on WindoWall Pro models) — Component video, S-video, or composite video. These virtual inputs can be configured only via the Windows-based control software or SIS (Simple Instruction Set) commands. In each column of connectors, you can connect inputs as follows:

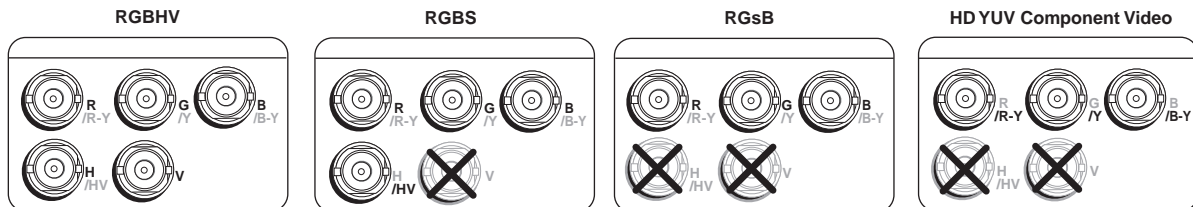
- Three composite video
- One S-video and one composite video

NOTE: The S-video input must be connected to the top two BNC connectors in the column (Y on top, C second).

- One interlaced component video (connects to all three BNC connectors in the column)



4. Attach an output device to the analog BNC connectors (shown below) or to the HDMI output connector.



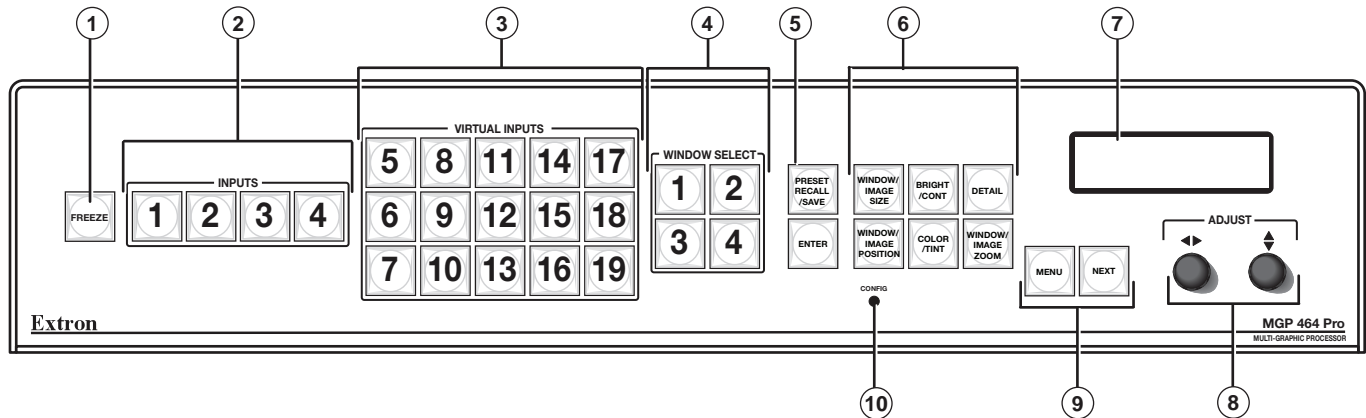
5. If the MGP Pro will be connected to a computer or to a host controller for remote control, connect an RS-232 cable from the host to the 9-pin D RS-232/422 rear panel connector or the front panel 2.5 mm TRS Config port. The default protocol for both ports is 9600 baud, 1 stop bit, no parity, 8 data bits, and no flow control.

Alternatively, you can connect an RJ-45 network cable to the rear panel LAN port for remote control.

6. Connect power to the MGP Pro by plugging a standard IEC power cord (provided) from a 100 to 240 VAC, 50-60 Hz power source into the power receptacle (12) on the [rear panel diagram](#) on page 1).
7. Connect power to all other devices and power them on.

Front Panel Buttons (Non-WindoWall Pro Models Only)

The MGP 464 Pro (shown below) and MGP 462 Pro front panels contain the following buttons to control and configure the MGP Pro. When you press a button, the LCD panel displays the settings that you can change.



- ① **Freeze** — Freeze the input in the currently selected window. To unfreeze the input, press this button again.
- ② **Inputs 1, 2, 3, and 4** — Select fully configurable inputs 1 through 4. On the MGP Pro DI models, these buttons can also select the four HDMI inputs. On the MGP Pro 3G-SDI models, input buttons 1 and 2 can select the SDI inputs and buttons 3 and 4 can select the HDMI inputs. To mute (turn off) the input in a window, press its button twice (or once, if the button is already lit). The button flashes while the input is muted.
- ③ **Virtual Inputs (5 through 19)** — Select virtual inputs 5 through 19. These inputs can be configured via control software or SIS commands to accept S-video, composite video, or standard definition component video only.
- ④ **Window Select** — Select a window to freeze and unfreeze, mute and unmute, select an input for, or to adjust using Picture Control buttons. The MGP 464 Pro models have four of these buttons and the MGP 462 Pro models have two.
- ⑤ **Preset Recall/Save and Enter** — In combination, save the current settings to memory (preset) or recall a stored preset (up to 128).
- ⑥ **Picture controls** — Adjust window and image size, position, brightness, contrast, detail (sharpness), color, tint, and zoom. Use the horizontal (◀▶) and vertical (⬆⬇) Adjust knobs to adjust the settings shown on the left and right sides of the LCD screen, respectively.
- ⑦ **LCD screen** — Displays messages, menu information, and your selections.
- ⑧ **Horizontal and vertical Adjust knobs** — Turn these knobs to scroll through submenu options and preset memory slots, and to adjust picture controls.
- ⑨ **Menu navigation buttons** — Press Menu to step through the menus. From each menu, press Next to step through its submenus.
- ⑩ **Config port** — RS-232 port that is an alternative to the rear panel RS-232/422 port but does not support RS-422

Setting Up the MGP Pro Using the Front Panel

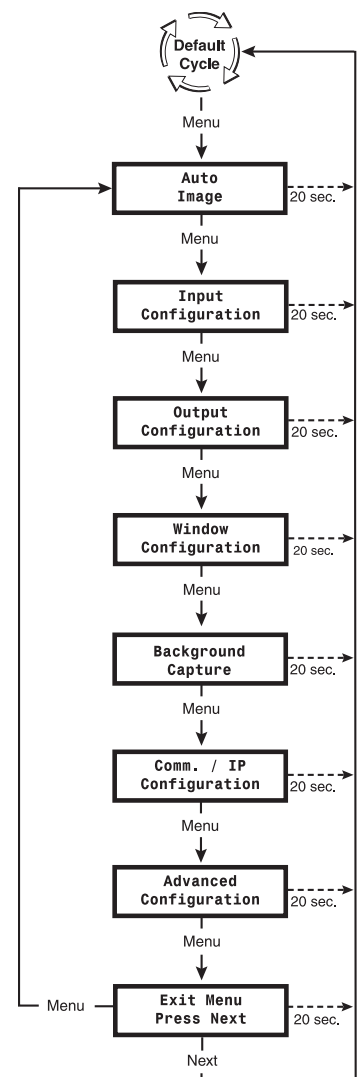
After you have installed and connected the MGP Pro, use the MGP Pro front panel to configure and adjust the unit for use. If installing a WindoWall Pro, see the WindoWall Console help file or the *WindoWall Console Quick Reference* card for information on configuring via software.

Press the Menu button to access the Main menu (shown at right). Then, repeatedly press the Menu button to cycle through the menus and access the Input Configuration, Output Configuration, and Advanced Configuration menus to perform steps 1 through 4.

1. Use the Input Configuration menu to configure inputs 1 through 4.

NOTE: The virtual inputs (5 through 19) can be configured only via the Windows-based control software or SIS commands.

2. Use the Output Configuration menu to configure the output signal type and the output rate for the desired resolution.
3. From the Advanced Configuration menu, Test Pattern submenu, select the Alternating Pixels (Alt. Pixels) test pattern. Adjust the active pixels, total pixels, and pixel phase settings of your display for optimal picture quality.



4. From the Advanced Configuration menu, change the test pattern to Crop and adjust the positioning of your display until all four sides of the crop pattern are visible.
5. Select input 1 for all windows on the processor.
6. Perform an Auto-Image adjustment.
 - a. Press the Menu button once to access the Auto-Image menu.
 - b. Press Next and use the Adjust knobs to select a window.
 - c. Press Next again to initiate the adjustment.
 - d. Repeat for all inputs on the MGP Pro.
7. Use the Input Configuration menu to make any desired advanced adjustments, including Horizontal and Vertical Start, Pixel Phase, Total Pixels, Active Pixels, and Active Lines.
8. Use the Picture Controls to size and position each window as desired for your application
9. Save your configuration as a window preset (see below).
10. Size and position windows as desired for each of your applications. Save each one to any of the remaining 127 window preset names for easy recall of window settings (see below).

Saving and Recalling Presets

To save the current configuration as a preset:

1. Press and hold the Preset Recall/Save button until the LCD screen displays Window Preset / Save to #nnn.
2. Rotate either Adjust knob to select the preset number or name to which you want to save this configuration.
3. Press the Enter button.

To recall and apply a saved preset, press the Preset Recall/Save button and immediately release it. The LCD window displays Window Preset / Recall #nnn. Rotate either Adjust knob to select a preset number, then press Enter.

SIS (Simple Instruction Set) Commands

As an alternative to the front panel controls, you can issue SIS commands via RS-232, RS-422, or Ethernet from your computer to set up the processor (see your MGP Pro or WindoWall Pro user guide at www.extron.com for a complete list of SIS commands).

Command	ASCII (Telnet)	Response	Additional Description
Select an input	[X1] * [X2] !	Out [X2] * In [X1] ←	Select input [X1] in window [X2].
Mute (blank) a window	[X2] * 1B	[X2] B1k1 ←	Blank (mute) window [X2].
Unmute a window	[X2] * 0B	[X2] B1k0 ←	Unmute window [X2].
Perform Auto-Image	55 * [X2] #	Img [X2] ←	Perform Auto-Image on input in window [X2].
Save window preset	2 * [X14] ,	Spr2 * [X14] ←	Save window settings as preset [X14].
Recall window preset	2 * [X14] .	Rpr2 * [X14] ←	Recall window preset [X14].
Set IP address	[Esc] [X107] CI ←	Ipi • [X107] ←	Set unit IP address [X107] (nnn . nnn . nnn . nnn)
Read IP address	[Esc] CI ←	[X107] ←	View the unit IP address ([X107]).
Set subnet mask	[Esc] [X113] CS ←	Ips • [X113] ←	Set unit subnet mask [X113] (nnn . nnn . nnn . nnn)
Read subnet mask	[Esc] CS ←	[X113] ←	View the unit subnet mask ([X113]).
Set gateway address	[Esc] [X107] CG ←	Ipg • [X107] ←	Set IP address [X107] for your gateway.
Read gateway address	[Esc] CG ←	[X107] ←	View the gateway IP address for your unit.

[X1] = Input number (1 - 19)

[X2] = Window number (1 - 2 or 1 - 4). 0 = all windows (mute, input selection, and freeze only)

[X14] = Window preset number (1 - 128)

[X107] = IP address (nnn . nnn . nnn . nnn). Leading zeros are optional in each octet.

[X113] = Subnet mask (nnn . nnn . nnn . nnn). Leading zeros are optional in each octet.

Extron Headquarters +1.800.633.9876 (Inside USA/Canada Only)	Extron Asia +65.6383.4400	Extron China +86.21.3760.1568	Extron Korea +82.2.3444.1571
Extron Europe +31.33.453.4040	Extron Japan +81.3.3511.7655	Extron Middle East +971.4.299.1800	Extron India +91.80.3055.3777